and substitutions will occur to those skilled in the art. It is, therefore, to be understood that this disclosure and its associated claims are intended to cover all such modifications and changes as fall within the true spirit of the invention

We claim:

1. An endoscopic optical system comprising;

a panoramic/forward viewing optical element which collects image information from the forward field of view and the panoramic field of view; and

an endoscope objective that collects and focuses the image information from the panoramic/forward viewing optical element; and

an endoscopic eyepiece to view the image information; and

an endoscopic relay system to transmit image information through the endoscope from the endoscope objective to the endoscopic eyepiece; and

a means of endoscopic illumination to distribute light to the forward field of view and the panoramic field of view.

2. An endoscopic optical system according to claim 1, wherein the panoramic/forward viewing optical element, further comprises a forward field of view optical element group, a panoramic field of view optical element group and a focusing optical element group.

3. An endoscopic optical system according to claim 2, wherein the forward field of view optical element group further comprises at least one optical element group.

4. An endoscopic optical system according to claim 2, wherein the panoramic field of view optical element group further comprises a first reflector and a second reflector.

5. An endoscopic optical system according to claim 2, wherein the focusing optical element group further comprises at least one optical element group.

6. An endoscopic optical system according to claim 4, wherein the first reflector has a spherical geometry.

7. An endoscopic optical system according to claim 4, wherein the first reflector has an aspherical geometry.

8. An endoscopic optical system according to claim 4, wherein the second reflector has a planar geometry.

9. An endoscopic optical system according to claim 4, wherein the second reflector has a concave geometry.

10. An endoscopic optical system according to claim 4, wherein the second reflector has a convex geometry.

11. An endoscopic optical system according to claim 4, wherein the first reflector has a central clear aperture to pass the image information through.

12. An endoscopic optical system according to claim 4, wherein the second reflector has a central clear aperture to pass the forward field of view image information through.

13. An endoscopic optical system according to claim 1, wherein the image information viewed through the endoscopic eyepiece comprises the forward field of view image information and the panoramic field of view image information on a single image plane.

14. An endoscopic optical system according to claim 13, wherein the image information viewed through the endoscopic eyepiece comprises a total continuous field of view of at least 240 degrees.

15. An endoscopic optical system according to claim 13, wherein the image information viewed through the endoscopic eyepiece comprises a substantially seamless boundary between the forward field of view image information and the panoramic field of view image information.

16. An endoscopic optical system according to claim 13, wherein the image information viewed through the endoscopic eyepiece comprises substantially matched magnifications for the forward field of view image information and the panoramic field of view image information.

17. An endoscopic optical system according to claim 13, wherein the image information viewed through the endoscopic eyepiece comprises substantially matched brightness for the forward field of view image information and the panoramic field of view image information.

18. An endoscopic imaging system according to claim 1, wherein the panoramic/forward viewing optical element is housed within an optically transparent tube that is integrally aligned with the remainder of the endoscope housing.

19. An endoscopic imaging system according to claim 1, wherein the means of illumination comprises fiber optic illumination around the entire outer circumference and a semi-reflective and semi-transparent angled seam in an optically transparent tube placed distally to the fiber optic illumination to distribute the illumination to both the forward field of view and the panoramic field of view.

20. An endoscopic imaging system according to claim 1, wherein the means of illumination comprises fiber optic illumination around the entire outer circumference and an optically transparent tube with a diffuse portion on its outer circumference placed distally to the fiber optic illumination to distribute

the illumination to both the forward field of view and the panoramic field of view.

21. An endoscopic imaging system according to claim 1, wherein the means of illumination comprises fiber optic illumination around the entire outer circumference and an optically transparent tube with a diffuse portion on its inner circumference placed distally to the fiber optic illumination to distribute the illumination to both the forward field of view and the panoramic field of view.

22. An endoscopic imaging system according to claim 1, wherein the means of illumination comprises fiber optic illumination around the entire outer circumference and an optically transparent tube with a curved notch on its outer circumference placed distally to the fiber optic illumination to distribute the illumination to both the forward field of view and the panoramic field of view.

23. An endoscopic imaging system according to claim 1, wherein the means of illumination comprises fiber optic illumination around the entire outer circumference and an optically transparent tube with a angled notch on its outer circumference placed distally to the fiber optic illumination to distribute

the illumination to both the forward field of view and the panoramic field of view.

24. An endoscopic imaging system according to claim 1, wherein the means of illumination comprises fiber optic illumination around the entire outer circumference with some fibers continuing on the inside of the optically transparent tube for illumination of the forward field of view and the remainder of the fibers ending at the optically transparent tube for illumination distribution to the panoramic field of view.

25. An endoscopic imaging system according to claim 24, wherein the optically transparent tube further comprises a reflective angled seam for illumination distribution to the panoramic field of view.

26. An endoscopic imaging system according to claim 24, wherein the optically transparent tube further comprises a reflective seam and an optically diffuse proximal section for illumination distribution to the panoramic field of view.